

CLAIMS:

1. A communications system comprising at least one beacon device capable of wireless message transmission and at least one portable device
5 capable of receiving such a message transmission, wherein the beacon is arranged to broadcast messages using a first protocol which provides a series of inquiry messages, different inquiry messages in the series being provided on different carrier frequencies, and wherein the beacon is arranged to broadcast additional data using a spread spectrum transmission technique.

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2. A system as claimed in claim 1, wherein the inquiry messages are each in the form of a plurality of predetermined data fields and wherein the beacon is arranged to add to each inquiry message prior to transmission an additional data field for the additional data.

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3. A system as claimed in Claim 2, wherein the beacon is arranged to add said additional data field at the end of a respective inquiry message.

4. A system as claimed in claim 2, wherein the beacon is arranged
20 to include an indication in one of said predetermined data fields, said indication denoting the presence of said additional data field.

5. A system as claimed in claim 2, wherein said additional data field carries at least 64 bits of data.

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6. A system as claimed in claim 2, wherein the additional data is spread using a sequence.

7. A system as claimed in claim 6, wherein the additional data
30 comprises data at 91kb/s spread at a rate of 1Mb/s with an 11 bit code.

8. A system as claimed in claim 1, wherein the spread spectrum transmission technique comprises a single channel direct spread spectrum sequence transmission system.

5 9. A system as claimed in claim 1, wherein the additional data enables a portable device and the beacon device to commence wirelessly exchanging data using the first protocol.

10 10. A system as claimed in claim 9, wherein the additional data enables a portable device and the beacon device to commence wirelessly exchanging data using the first protocol without use of the inquiry messages.

15 11. A system as claimed in claim 1, wherein the system comprises at least one portable device of a first type and at least one portable device of a second type, and wherein a portable device of the first type is arranged to receive the transmitted inquiry messages and receive said additional data, whereas a portable device of the second type is arranged to receive the transmitted inquiry messages but not to receive said additional data.

20 12. A system as claimed in claim 1, wherein said first protocol comprises Bluetooth messaging.

25 13. A system as claimed in Claim 12, wherein the beacon is configured to broadcast a series of inquiry messages on a predetermined clocked succession of frequencies, with clock information for said beacon being included in said additional data.

30 14. A mobile communication device for use in the system of Claim 1, the device comprising a receiver capable of receiving a short-range wireless inquiry message according to a first communications protocol and additional data broadcast using a spread spectrum transmission technique, the device

further comprising means for reading the additional data and presenting the same to a user.

15 15. A device as claimed in Claim 14, wherein the receiver is configured to receive messages according to Bluetooth protocols.

16. A beacon device capable of wireless message transmission and for use in a communications system comprising said beacon device and at least one portable device capable of receiving such a message transmission,
10 wherein the beacon device is configured to broadcast a series of inquiry messages arranged according to a first protocol, and to broadcast additional data using a spread spectrum transmission technique.

17. A device as claimed in claim 16, wherein the beacon is
15 configured to add to each inquiry message prior to transmission an additional data field for the additional data, the beacon device further comprising means for spreading the additional data within the additional data field.

18. A beacon device as claimed in claim 17 arranged to include an
20 indication in the inquiry message, said indication denoting the presence of said additional data field.

19. A beacon device as claimed in claim 16, wherein said first
protocol comprises Bluetooth messaging.

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20. A method of communicating between a beacon device and a portable communications device, comprising:

transmitting a series of inquiry messages arranged according to a first protocol, different inquiry messages in the series being provided on different
30 carrier frequencies, and

broadcasting additional data using a spread spectrum transmission technique,

wherein the portable device receives the additional data and determines therefrom whether or not to communicate with the beacon device using the first protocol.

- 5 21. A method as claimed in claim 20, wherein the additional data enables the portable device to establish communication with the beacon device without use of the inquiry messages.

- 10 22. A method as claimed in claim 20, wherein said first protocol comprises Bluetooth messaging.